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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/740,615	12/18/2000	Sheldon Schultz	2003-0001.20	1773
22918	7590	12/16/2003	EXAMINER	
PERKINS COIE LLP P.O. BOX 2168 MENLO PARK, CA 94026			LAM, ANN Y	
			ART UNIT	PAPER NUMBER
			1641	

DATE MAILED: 12/16/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/740,615

Applicant(s)

SCHULTZ ET AL.

Examiner

Ann Y. Lam

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 18 December 2000.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 19-29 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 19-29 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. §§ 119 and 120**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
- a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Election/Restrictions***

Restriction requirement in the previous Office action is hereby withdrawn based on the preliminary amendment, which canceled all the claims except claims 19-29.

### ***Claim Objections***

Claim 29 depends from claim 29 and thus is improper.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 19-29 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 25 recites the limitation "said target" in line 1. There is insufficient antecedent basis for this limitation in the claim.

The phrase "such other" in claim 19, line 8, and claim 23, line 3 renders the claim indefinite because it is unclear whether the limitations following the phrase are part of the claimed invention. See MPEP § 2173.05(d).

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 19-29 are rejected under 35 U.S.C. 102(e) as being anticipated by King et al., 5,633,724.

The King et al. reference discloses an apparatus comprising an optical light source (see column 14, line 20), an optical detector (208a, see column 6, lines 13-20) for detecting a spectral emission characteristics of individual PREs and other light scattering entities, an image processor (122, see column 5, lines 58-59) operatively connected to the detector for constructing a computer image of the positions (see column 4, lines 52-55 and column 5; lines 53-60, and column 6, lines 13-15) and values (see column 6, line 60 – column 7, lines 22) of the spectral emission characteristic of individual PREs and, discriminator means (122, see column 5, line 58, and column 7, line 7) for discriminating PRE's with a selected spectral signature from other light-scattering entities in the computer image, and output means (122, see column 5, line 58, and column 6, lines 13-15) for displaying information about the field based on the information about the selected PREs.

As to claim 20, the light source includes a bright field/dark field lens (see column 9, line 31, and column 15, line 5.)

As to claim 21, the light source includes means for illuminating at a plurality of different wavelengths (see column 12, line 2.)

As to claim 22, the detector is a two-dimensional photodetector array (208a, see column 6, line 8-9) capable of detecting a spectral emission characteristic simultaneously from a plurality of illuminated PREs.

As to claim 23, the detector includes means (see column 12, line 2) for spectrally separating light emitted from the PREs, and said image processor operates to form a computer image of the positions (see column 4, lines 52-55 and column 5, lines 53-60, and column 6, lines 13-15) and values (see column 6, line 60 – column 7, lines 22) of the emission spectral characteristic of individual PREs and other light-scattering entities.

As to claim 24, the optical detector includes a two-dimensional array of optical fibers (450, see column 14, line 20) whose output is aligned so as to constitute a line source that is sent into a grating or prism (104see column 5, line 6), and a two-dimensional detector array (208a, see column 6, line 8-9).

As to claim 25, there is a means for moving the target in an x-y plane (see column 10, line 6-7.)

As to claim 26, the image processor operates to construct an image of PRE positions (see column 4, lines 52-55 and column 5, lines 53-60, and column 6, lines 13-15) and peak intensity (see column 4, lines 52-55 and column 5, lines 53-60, and column 6, lines 13-15)

As to claim 27, the image processor operates to construct an image of PRE positions (see column 4, lines 52-55 and column 5, lines 53-60, and column 6, lines 13-

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15) and fluorescence emission spectrum or Raman spectrum (see column 6, lines 42-50.)

As to claim 28, the discriminator means includes means for discriminating PREs based on detected values of peak intensity (see column 4, lines 40-42, column 4, line 66 – column 5, line 4, and column 6, line 62 – column 7, line 8.)

As to claim 29, the discriminating means discriminates for a selected type of PRE, or those PREs which are interacting with one another and those which are not (see column 4, lines 40-42, column 4, line 66 – column 5, line 4, and column 6, line 62 – column 7, line 8.)

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Johnston et al., 5,815,278, discloses a plasmon resonance light pipe sensing probe.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ann Y. Lam whose telephone number is (703) 306-5560. The examiner can normally be reached on M-Sat 11-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Long V. Le can be reached on (703)305-3399. The fax phone number for the organization where this application or proceeding is assigned is (703)308-4242.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)308-0196.

A.L.



CHRISTOPHER L. CHIN  
PRIMARY EXAMINER  
GROUP ~~1800~~ 1641